



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

SUZANNE D. CASE
CHAIRPERSON

WILLIAM D. BALFOUR, JR.
KAMANA BEAMER, PH.D.
MICHAEL G. BUCK
NEIL J. HANNAHS
MILTON D. PAVAO
VIRGINIA PRESSLER, M.D.

JEFFREY T. PEARSON, P.E.
DEPUTY DIRECTOR

STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

May 16, 2017
Honolulu, Hawaii

Approval of the Scope of Work for the Primary Urban Center Watershed Management Plan to
Update the Water Use and Development Plan for the City and County of Honolulu

SUMMARY OF REQUEST

Staff requests that the Commission approve the scope of work for the Primary Urban Center Watershed Management Plan, which will update the Water Use and Development Plan for the City and County of Honolulu.

BACKGROUND

The State Water Code, Chapter 174C, HRS, requires that the Commission on Water Resource Management (Commission) implement and utilize comprehensive water resources planning in its regulation and management of our State's water resources. The Water Code sets forth the requirement for initial development and updating of the Hawaii Water Plan (HWP) to guide the Commission in executing its general powers, duties, and responsibilities assuring economic development, good municipal services, agricultural stability, and environmental protection.

The HWP is intended to serve as a continuing long-range guide for water resource management. The HWP currently consists of five major components (plans) identified as the: 1) Water Resource Protection Plan, 2) Water Quality Plan, 3) State Water Projects Plan, 4) Agricultural Water Use and Development Plan, and 5) County Water Use and Development Plans (WUDP). The Water Code mandates that these individual plans be prepared and integrated into a comprehensive "master plan" to provide for effective coordination and long-range planning between state and county agencies.

To fulfill this mandate, the components of the HWP must be reviewed and updated on a regular basis. The initial HWP adopted by the Commission in 1990, provided the means to

address many issues including, but not limited to, establishment of ground water hydrologic units, estimates of sustainable ground water yields and surface water flows by island, existing water systems, and an initial evaluation of current and projected water needs for the State and the Counties.

An updated HWP is considered essential to effective coordination and integration of State and County actions related to sustainable water resource development and enables the Commission to more effectively implement the statutory objectives of the Water Code. Absence of updated information can lead to preparation and implementation of inadequate or unrealistic plans for development of existing and alternative water resources, and may result in conflicting objectives or uses that threaten our State's limited water resources. The lack of up-to-date demand projections and proposed strategies to meet such demands limit the State's and Counties' ability to address future water development and resource protection issues.

In updating the HWP components, there is consensus agreement among State and County agencies that a comprehensive water resource planning process is needed to address the problems of supply, demand, and conservation of water. Accordingly, the required updates/revisions to the HWP should follow and utilize an evaluation and assessment process that emphasizes the consideration of various planning scenarios incorporating uncertainties, environmental externalities, and public needs into a strategic decision-making process.

Under a comprehensive resource planning approach, all types of resources would be assessed and weighed in the context of new/existing supply-side resources, alternative source development such as wastewater reuse, conservation, alternative rate structures, as well as other demand-side management methods. In this process, the concept of least-cost planning can be pursued while balancing supply-side and demand-side management issues. A major outcome of this effort will be the development of coordinated strategies to meet future water demands, including greater use of alternative water sources, wherever possible.

STATEWIDE FRAMEWORK

Updating the various components of the HWP should take into consideration current statutory objectives that include, but are not limited to, obtaining maximum reasonable-beneficial uses of water; protection of natural resources, existing water rights (including the Department of Hawaiian Homelands) and traditional and customary Hawaiian practices; protection and procreation of fish and wildlife; and the maintenance of proper ecological balance, scenic beauty, and recreation.

In addition, the updating process should lead to refinement of demand projections, planning principles, and strategies associated with water resource planning and development. Such efforts should result in: identification and assessment of potential new sources; more realistic demand projections/forecasts; improvements in the operation of existing systems; application of various screening criteria/analyses; more effective integration between demand- and supply-side resource options; and overall improved coordination between State and counties.

The planning objectives described above are clearly set forth and established within *The Statewide Framework for Updating the Hawaii Water Plan* (Framework) adopted by the Commission in February 2000. Recommended planning elements for each component of the

HWP are prescribed in the adopted Framework, including issues that should be addressed as part of a comprehensive updating process.

In addition to the statutory requirements set forth in the Water Code, key elements of the Framework pertaining to the update of the County WUDPs include, but are not limited to:

- Submission of a County-Specific WUDP Project Description for review and approval by the Commission. The Project Description should include:
 - Identification of specific issues relating to land use, water use and resource development, and the relative priority of the issues to be addressed in the WUDP update;
 - An outline of the County's plan for establishment of planning objectives and evaluation criteria;
 - A description of its public/stakeholder participation and public information program;
 - A description of its plans for identification of: water demand forecasts (and the consideration of future uncertainties) within the hydrologic units and water availability limits established by the Commission, conservation and demand-side management programs, source development options and any potential impacts to the resource, and the development and integration of resource development strategies;
 - A schedule for the County's updating of the WUDP, which shall:
 - Outline the different stages and activities of the County's planning effort;
 - Indicate the approximate times and anticipated duration for public participation activities;
 - Indicate the approximate timeframe for County approval of the WUDP and submission of the WUDP to the Commission for adoption;
 - A description on how information from the State Water Projects Plan and the Agricultural Water Use and Development Plan will be integrated and used in updating the WUDP.
- A facilitated public participation process involving the community, public interest groups, and government agencies involved in the preparation of the County WUDPs.
- Each County shall brief the Commission and its staff regarding any planned updates of the County WUDP; and
- Lastly, periodic milestone briefings to the Commission by the County shall also be required as part of the WUDP updating process.

Key statutory requirements that should be addressed as part of the WUDP update include:

- Consistency with:
 - The Water Resource Protection Plan and Water Quality Plan;
 - County land use plans and policies; and
 - State land use classification and policies.
- The status of water and related land development including an inventory of existing water uses;
- Future land uses and related water needs;
- Regional plans for water developments including recommended and alternative plans, costs, and adequacy of plans;

- Consultation and careful evaluation of recommendations of concerned Federal, State and County agencies;
- Incorporation of the current and foreseeable development and use needs of the Department of Hawaiian Home Lands (DHHL); and
- Lastly, updating and modification of the WUDP as necessary to maintain consistency with its zoning and land use policies.

The statutory and Framework provisions described above set forth the minimum requirements for updating the WUDP component of the HWP, including the overall-planning framework that should be followed by the Counties in updating their respective WUDPs. The required elements are consistent with the goals and policy of the Water Code and the Commission's mandate to manage and protect the State's water resources. The envisioned outcomes, benefits, and products are directly supportive of the Commission's duties and responsibilities set forth in §174C-5, HRS, and the requirements of the HWP described in §174C-31, HRS.

OAHU WATER MANAGEMENT PLAN

In accordance with these established provisions, the City and County of Honolulu proposed an Oahu Water Management Plan (OWMP) framework. The OWMP framework was presented to and approved by the Commission on March 17, 2004. According to the OWMP framework, the OWMP will be updated based on Oahu's land use planning districts. These districts are: Waianae, Koolauloa, Koolaupoko, North Shore, Ewa, Central Oahu, East Honolulu and the Primary Urban Center. The OWMP framework calls for regional watershed management plans to be developed for each of these land use planning districts. These watershed management plans will be consolidated into an overall WUDP for the City and County of Honolulu (County).

Table 1 summarizes the status of the district watershed management plans.

Table 1. Status of Watershed Management Plans

District	Status
Waianae	WMP Approved March 11, 2011
Koolauloa	WMP Approved March 11, 2011
Koolaupoko	WMP Approved September 19, 2012
North Shore	WMP Approved December 20, 2016
Ewa	Scope of Work Approved May 16, 2012
Central Oahu	Scope of Work Approved October 16, 2013
Primary Urban Center	Scope of Work Submitted for Approval
East Honolulu	<i>(no update initiated)</i>

Primary Urban Center (PUC) Watershed Management Plan Project Description

On April 18, 2017, the County submitted its scope of work (i.e., WUDP "Project Description"; Exhibit 1) via email. An addendum to the scope of work was emailed on April 23, 2017 (Exhibit 2). Staff has evaluated the planning elements described in the scope of work and addendum and has determined that the proposed WUDP updating process for the PUC Watershed Planning

Area meets the provisions and guidelines set forth in the State Water Code and the Commission's Statewide Framework for Updating the Hawaii Water Plan.

Staff is expectant that the efforts of the County will result in development of a robust evaluation and assessment process, emphasizing the integration of various planning scenarios, and incorporating uncertainties, environmental externalities, and public needs into a strategic decision-making process. We also note and concur with the County's incorporation of a robust, facilitated public participation/education process involving the community, public interest groups, and government agencies, as described in Exhibit 1.

Staff looks forward to the County's implementation of a comprehensive planning approach, which facilitates the development and regular updating of a WUDP that conforms to the intentions of the county land use plans. The WUDP should provide guidance for decision-making on water allocation requests, as well as guidance for the formulation of recommended and alternative strategies for resource development to meet future demand scenarios.

In accordance with the Oahu Water Management Plan Framework, each watershed management plan will be submitted as separate documents, closely supporting each respective land use plan (e.g., Development Plan or Sustainable Community Plan), to the County Council for adoption by ordinance. Each regional plan will also be submitted to the Commission for adoption. At the completion of the first iteration of all the watershed management plans, a consolidation/integration process will be used to address inter-regional issues, culminating in an overall island-wide plan and perspective.

RECOMMENDATION

Staff recommends that the Commission approve the City and County of Honolulu's Scope of Work for the Primary Urban Center Watershed Management Plan.

Respectfully submitted,



JEFFREY T. PEARSON, P.E.
Deputy Director

Exhibit 1 PUC WMP Project Description
Exhibit 2 Project Description Addendum

APPROVED FOR SUBMITTAL:



SUZANNE D. CASE
Chairperson



PRIMARY URBAN CENTER WATERSHED MANAGEMENT PLAN ('PUC WMP')

SCOPE OF WORK –

April 7, 2016

OVERALL GOAL

The overall goal of the 'Primary Urban Center Watershed Management Plan (PUC WMP) is to develop a community-based, environmentally-holistic, action-oriented plan for the watersheds of the 'Primary Urban Center District (Pearl City to Diamond Head), that will be in alignment with the State of Hawaii Water Code, Act 152 SLH 2000 Relating to Watershed Protection, the Hawaii Water Plan components, the Statewide Framework for Updating the Hawaii Water Plan, the Hawaii Supreme Court Decision on the Waiāhole Ditch Contested Case applying the Public Trust Doctrine and the Precautionary Principle to water resource management, the Oahu Water Management Plan, Chapter 30, Water Management, the 'Primary Urban Center Development Plan, the Honolulu Board of Water Supply's vision of "Ka Wai Ola, Safe, Dependable and Affordable Water Now and into the Future", the BWS 30-year Water Master Plan, the BWS Stakeholder Advisory Group findings, the Department of Hawaiian Home Lands needs, and other relevant Plans and Principles, and that will also reflect the ahupua'a management values and principles of the people of the 'Primary Urban Center region.

The PUC WMP will be **community-based** through extensive and intensive discussions and consultation with community leaders, community organizations, landowners, developers, public agencies and officials, and other stakeholders. The Plan will be **environmentally holistic** through an inventory and analysis of data on the many natural processes and resources that interact within the 'Primary Urban Center District, including climate, geology, topography, soils, surface water, ground water, nearshore ocean waters, plants, animals, and ecological communities, as well as human uses and impacts and the water system infrastructure to support existing and projected growth. The Plan will be **action oriented** by defining and describing projects and programs that can be implemented by the BWS and by other federal, state, and city agencies, as well as by community groups and organizations.

There are five phases for this plan. The first phase will provide an Oahu Overview of water supply, demand, planned water sources, planning implications and uncertainties and contingencies and a Preliminary Watershed Analysis that includes background research on physical, biological, and socioeconomic conditions, as well as on watershed resources, ideas, and watershed issues from community stakeholders. Based on the data analysis and stakeholder outreach, 'Primary Urban Center-specific Watershed Management Plan sub-objectives will be developed. A preliminary methodology for projecting future water demands will also be developed. The second phase will be a Preliminary Plan Formulation, where the

water demand forecast methodology will be implemented and refined and natural/alternative water supply and watershed management projects and strategies are developed.

The third phase will then be the development of the Draft Watershed Management Plan, providing water use and watershed management strategies for sustainable water development for 'Primary Urban Center. Phase four will be to finalize the PUC WMP and the fifth phase will include tasks needed for Plan approval.

GENERAL PROJECT MANAGEMENT: the consultant shall meet at least once a month with the BWS and DPP Project Managers to review progress and to discuss important project issues and findings.

PHASE 1 – PRIMARY URBAN CENTER WATERSHED PROFILE AND INITIAL STAKEHOLDER CONSULTATIONS AND THE “O’AHU WATER MANAGEMENT PLAN OVERVIEW”

Task 1.1 – Develop PUC WMP Work Plan and Schedule in consultation with BWS and DPP. Review and revise the Work Plan and Schedule, as needed.

Task 1.2 – Gather, analyze and summarize existing relevant data for the PUC, including but not limited to data on pre-contact land use/customs/wahi pana/ahupua'a, contemporary land and water resources, water uses and users, water demand trends, potable water infrastructure, quality of ground water and surface water, flooding and drainage, land ownership, land use, land development trends, urban infrastructure, demographics, and population trends and projections.

Task 1.3 – Gather, review and briefly summarize relevant plans for the PUC including but not limited to the City's "Primary Urban Center Development Plan" (2004), "Central O'ahu Watershed Study" (May 2007) which included portions of the PUC, "West Honolulu Watershed Study" (May 2003), "Ala Wai Watershed Analysis" (July 2003), "Ala Wai Watershed Draft EIS" (October 2015), BWS "Water Master Plan" (Draft of April 2016), the current/most recent Hawai'i Water Plan reports by CWRM, DOH, DLNR and DOA.

Task 1.4 – Gather, analyze and summarize information on special areas of concern including the potential effects of CLIMATE CHANGE on the water resources and water infrastructure of the PUC and NEW WATER CONSERVATION AND WATER RECYCLING TECHNOLOGIES that may be relevant to urban environments like the PUC.

Task 1.5 – Design and begin to implement a Stakeholder Outreach Process in order to preliminarily identify important PUC WATERSHED issues as seen by relevant public agencies, environmental organizations, community organizations, elected officials, the 17 Neighborhood Boards (NHBs) within the PUC, major land owners, the U.S. Army and the U.S. Navy. Develop a succinct written summary of the important PUC WATERSHED

ISSUES that were identified through this process. This Task will be limited to not more than forty (40) meetings, including initial presentations by BWS and the consultant to each of the 17 PUC Neighborhood Boards to inform them of the goals, objectives, process and general timeline for the PUC WMP.

Task 1.6 – Plan and confirm with BWS “Neighborhood Board Groupings” for the purpose of community meetings with subareas of the PUC. Include in the initial presentations to the 17 NHBs under Task 1.5 above suggestions on NHB Groupings into three groups. After the 17 NHB initial presentations have been completed, confirm the 3 NHB groupings with NHB Chairpersons and with BWS and DPP.

Task 1.7 – Based on the work to date, develop a Working Paper that provides a profile of the PUC and summarizes critical watershed and water resources issues for the PUC. Submit this Working Paper to BWS, DPP, the 17 NHBs and to other relevant public agencies and private entities for their review and comment.

Task 1.8 – Receive comments on Working Paper No. 1 and revise as needed.

Task 1.9 – Plan, schedule, prepare for, publicize, facilitate and document three (3) “First Series of PUC WMP Community Meetings” to present a summary of important PUC facts, trends, and water resources issues and to receive comments on these and related issues from the interested public. BWS representatives will announce the dates and places for the three community meetings at regular meetings of each of the 17 NHBs. The venues for these three community meetings will be places that are central to each of the three NHB Groupings. Invitees will include NHB members and representatives of relevant public agencies and private organizations.

Phase 1 Timeline: Months 1 through 6 of the contract

**Phase 1 Deliverables: Work Plan and Schedule, Working Paper No. 1 on PUC Profile and Critical Water Resources Issues and the Oahu Water Management Plan Overview
Documentation of three Community Meetings**

PHASE 2 – PUC WATER DEMAND ANALYSIS (“CHAPTER 3” OF THE PLAN)

Task 2.1 – In consultation with BWS and DPP, develop four alternative “future growth scenarios” for the PUC: “High Growth,” “Moderate Growth,” and “Low Growth” to 2040 and an “Ultimate Growth”. Variables that will be considered in developing these alternative growth scenarios include: opportunities for “Transit-Oriented Development” (TOD) associated with the planned commuter rail stations in the PUC, the continued development of the Kaka’ako District, redevelopment of some of the City’s older neighborhoods, and the negative impacts of climate change.

Task 2.2 – Develop a draft Water Demand “Model” and preliminary forecast numbers for Water Demand, both potable and non-potable, for the four future growth scenarios for the PUC. Factors to include in the Water Demand “Model” include: Base Year 2010 actual water use in the PUC, per capita water demand in the PUC, ongoing and new water conservation programs, the impacts of climate change on water use and the potential impacts of new water resources recycling and reuse technologies on water demand.

Task 2.3 – Document the four alternative future growth scenarios and the draft water demand projections in a Working Paper No. 2; submit working paper to BWS and DPP for review and comment.

Task 2.4 - Meet with BWS and DPP to discuss water demand projections in detail, and revise Working Paper No. 2 as needed.

Task 2.5 - Plan, schedule, prepare for, publicize, facilitate and document three “Second Series of PUC WMP Community Meetings” to present a summary of the alternative growth scenarios and water demand projections and to receive comments on these and related issues from NHB members, public agencies, private organizations and the interested public. BWS representatives will announce the dates and places for the three community meetings at regular meetings of each of the 17 NHBs.

Phase 2 Timeline: Months 7 through 10 of the contract

Phase 2 Deliverables: Working Paper No. 2: Four alternative growth scenarios and related water demand projections for the PUC; Documentation of three Community Meetings

PHASE 3 – WATERSHED MANAGEMENT PROJECTS AND STRATEGIES (“CHAPTER 4” OF THE PLAN)

Task 3.1 – In consultation with BWS and DPP, develop a set of SUB-OBJECTIVES for the PUC WMP that respond to the previously identified critical water resources issues. The sub-objectives will be organized under the five major Objectives that are common to all of the BWS Watershed Management Plans.

Task 3.2 – Through additional meetings with BWS and key stakeholders and through related research, identify and document up to twenty (20) important water supply and watershed management PROJECTS AND PROGRAMS for the PUC. Most if not all of these projects and programs should be either already planned or being actively implemented by a public or private organization.

Task 3.3 – Identify and document up to twenty (20) important water supply and watershed management STRATEGIES for the PUC. “Strategies” are defined as watershed projects or programs that should be organized and implemented for the PUC, but which do not yet have a “champion” that will organize and implement the project or program.

Task 3.4 – Document the key issues, objectives, sub-objectives, projects, programs and strategies in a Working Paper and submit the Working Paper to BWS and DPP for review and comment.

Task 3.5 – Meet with BWS and DPP to receive comments on Working Paper No. 3, and revise the material on PUC WMP issues, objectives, sub-objectives, projects, programs and strategies as needed.

Task 3.6 – Plan, schedule, prepare for, publicize, facilitate and document three “Third Series of PUC WMP Community Meetings” to present a summary of the PUC issues, objectives, sub-objectives, projects, programs and strategies to NHB members, public agencies, private organizations and the interested public. BWS representatives will announce the dates and places for the three community meetings at regular meetings of each of the 17 NHBs.

Phase 3 Timeline: Months 11 through 16

**Phase 3 Deliverables: Working Paper No. 3: PUC WMP issues, objectives, sub-objectives, projects, programs and strategies;
Documentation of three Community Meetings**

PHASE 4 – PUC WATERSHED MANAGEMENT – IMPLEMENTATION PLAN (“CHAPTER 5” OF THE PLAN)

Task 4.1 – Analyze and integrate all of the PUC WMP material developed to date, and develop a draft plan and strategy for providing for the PUC’s potable and non-potable water needs for the 4 alternative growth scenarios by the Year 2040. This draft PUC WMP Implementation Plan will need to be much more than a simple “matching” of water sources to future water demands. The draft Implementation Plan will also need to account for the impacts of future development within the PUC, the impacts of climate change, and the potential benefits and impacts of water conservation programs, new urban water recycling technologies and storm water capture and recharge.

Task 4.2 – Develop a Working Paper documenting the draft Implementation Plan for the PUC WMP and submit this Working Paper to BWS and DPP for review and comment.

Task 4.3 – Meet with BWS and DPP to discuss the Implementation Plan for the PUC WMP.

Task 4.4 – Organize the review comments from BWS and DPP and revise Working Paper No. 4 as needed.

Phase 4 Timeline: Months 17 through 20

Phase 4 Deliverables: Working Paper No. 4: Draft Implementation Plan

PHASE 5 – AGENCY REVIEW DRAFT AND PUBLIC REVIEW DRAFT

Task 5.1 – Compile all of the Working Papers, edit as needed, and submit the compiled draft “Chapters 1 through 5” of the PUC WMP to BWS for review and comment.

Task 5.2 – Incorporate BWS comments; prepare the PUC WMP AGENCY REVIEW DRAFT document and submit the Draft to BWS, DPP and CWRM for review and comment.

Task 5.3 – Receive comments on the AGENCY REVIEW DRAFT through memos, emails and review meetings and revise the draft PUC WMP as needed.

Task 5.4 – Prepare and submit to BWS the PUC WMP PUBLIC REVIEW DRAFT and coordinate with BWS for posting of the PUBLIC REVIEW DRAFT on the BWS web site. Schedule presentations of the PUBLIC REVIEW DRAFT with each of the 17 NHB’s in the PUC district.

Task 5.5 – The consultant and BWS will brief each of the NHB’s on the PUC WMP and seek their endorsement of the Plan at these meetings or at a subsequent meeting if a NHB requires more time to review the Plan (See Task 6.1 below.) Also brief PUC State Senators, State Representatives, and City Council Members on the Draft Plan.

Task 5.6 – Plan, schedule, prepare for, publicize, facilitate and document three “Fourth Series PUC WMP Community Meetings” to present the PUC WMP PUBLIC REVIEW DRAFT to public agencies, private organizations and the interested public.

Phase 5 Timeline: Months 21-28

Phase 5 Deliverables: PUC WMP AGENCY REVIEW DRAFT and PUC WMP PUBLIC REVIEW DRAFT

PHASE 6 – PREFINAL DRAFT, PLAN ADOPTION AND FINAL PUC WMP

Task 6.1 – Meet with the PUC Neighborhood Boards that did not endorse the PUC WMP in Task 5.4 above to receive their endorsement of the Plan or document the discussion in the

event a NHB does not elect to endorse the Plan. Document any substantive comments that the 17 NHB's may have on the PUBLIC REVIEW DRAFT.

Task 6.2 – Review and compile any and all comments received on the Public Review Draft, and note responses to these comments and how the comments are to be addressed in the PREFINAL document. In collaboration with BWS and DPP revise the PUBLIC REVIEW DRAFT as needed. Compile the PREFINAL PUC WMP. Submit the PREFINAL PUC WMP to BWS for their final review and comment.

Task 6.3 – Schedule and conduct a presentation of the PREFINAL PUC WMP to the BWS Chief Engineer, to the BWS Board, and to the Commission on Water Resource Management (CWRM).

Task 6.4 – Prepare for, participate in and complete the City Council adoption process for the PUC WMP, including a presentation to the Honolulu City Council and attendance at the required City Council Hearings.

Task 6.5– Coordinate with the CWRM staff to draft and post a PUBLIC HEARING NOTICE for the PUC WMP. Coordinate with CWRM staff to prepare for, conduct and document the Public Hearing. Assist the CWRM staff to obtain CWRM adoption of the PUC WMP.

Task 6.6 – Do any final detailed edits of the PUC WMP and submit electronic file copies of the PUC WMP to BWS, DPP and CWRM. Also print not more than twenty (20) copies of the final PUC WMP and submit these hard copies to individuals and entities as directed by BWS.

Phase 6 Timeline: Months 29-36

Phase 6 Deliverables: Prefinal and Final PUC WMP

MAJOR DELIVERABLES (Electronic submittals only unless otherwise noted)

Work Plan and Schedule

Working Paper No. 1: PUC Watershed Profile, Critical Watershed Issues and the Oahu Water Management Plan Overview

Working Paper No. 2: Four Alternative PUC Growth Scenarios and Related Water Demand Projections

Working Paper No. 3: PUC WMP issues, objectives, sub-objectives, projects, programs and strategies

Working Paper No. 4: Draft Implementation Plan

AGENCY REVIEW DRAFT of the PUC WMP (10 hard copies w/o Appendices)

PUBLIC REVIEW DRAFT of the PUC WMP (20 hard copies w/Appendices)

PREFINAL PUC WMP (20 hard copies w/Appendices)

FINAL PUC WMP (20 Hard Copies w/Appendices)



TOWNSCAPE, INC.

Environmental & Community Planning

900 Fort Street Mall Suite 1160 · Honolulu, HI 96813 · PH: (808) 536-6999 · FAX: (808) 524-4998 · www.townscapeinc.com

MEMORANDUM NO. 18

Re: Primary Urban Center Watershed Management Plan – Scope of Work
To: Lenore Ohye, Chief Planner, Commission on Water Resource Management
CC: Barry Usagawa, Water Resources Program Administrator, Board of Water Supply
By: Bruce Tsuchida, President, Townscape, Inc.
Date: April 21, 2017

Thank you for your email communication of April 21, 2017 regarding the SCOPE OF WORK for the Primary Urban Center Watershed Management Plan (PUC WMP).

With this Memorandum, we acknowledge that we will include in our scope of work:

- Plan elements that will be in alignment with Act 170 and Act 248, as enacted by the Hawai'i State Legislature in 2017;
- Three briefings to the Commission on Water Resource Management: one briefing during the development of the PUC WMP, one briefing on the Prefinal PUC WMP and a final briefing prior to holding the required Public Hearing on the Plan.

Thank you for your review and comments on the scope of work for the PUC WMP.